

PETITION NO. 1052



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December 3, 2012

VIA HAND DELIVERY

Robert Stein, Chairman  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**ORIGINAL**  
**RECEIVED**  
DEC - 3 2012

CONNECTICUT  
SITING COUNCIL

**RE: Petition of BE 2012 W LLC to the Connecticut Siting Council for a Declaratory Ruling for the Location and Construction of a 200-Kilowatt Fuel Cell Customer-Side Distributed Resource at 3164 Berlin Turnpike, Newington, Connecticut**

Dear Chairman Stein:

On behalf of BE 2012 W LLC, and pursuant to Conn. Gen. Stat. §§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 *et seq.*, enclosed are an original and fifteen (15) copies of the above-captioned Petition, together with the filing fee of \$625.

In the Petition, BE 2012 W LLC requests the Connecticut Siting Council's approval of the location and construction of an approximately 200-kilowatt (net) Bloom Energy Corporation fuel cell, including associated equipment (the "Facility"). The Facility will be located on a Walmart site at 3164 Berlin Turnpike, Newington, Connecticut (the "Site") within a landscaped island and adjacent to the loading area near the rear of the store. The Facility will be approximately 26'-5" long, 8'-7" wide, and 6'-9" high. Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the electric grid. The Facility will be fueled by natural gas.

BE 2012 W LLC was selected by The Connecticut Light and Power Company ("CL&P") as a winning bidder in the "Low and Zero Emissions Renewable Energy Credit Program" established under Sections 107, 108, and 110 of Public Act No. 11-80. As a result of that selection, BE 2012 W LLC has entered into a Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits with CL&P, which was approved by the Connecticut Public Utilities Regulatory Authority on November 21, 2012.

Please contact me with any questions concerning this filing.

Very truly yours,

**BROWN RUDNICK LLP**

Michael E. Kozlik  
Attorney for BE 2012 W LLC

Enclosures

60919640 v1-WorksiteUS-029819/0002

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

PETITION OF BE 2012 W LLC FOR A : PETITION NO. \_\_\_\_  
DECLARATORY RULING FOR THE :  
LOCATION AND CONSTRUCTION OF A 200- :  
KILOWATT FUEL CELL CUSTOMER-SIDE :  
DISTRIBUTED RESOURCE AT 3164 BERLIN :  
TURNPIKE, NEWINGTON, CONNECTICUT : DECEMBER 3, 2012

PETITION OF BE 2012 W LLC FOR A DECLARATORY RULING

Pursuant to Conn. Gen. Stat. §§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 *et seq.*, BE 2012 W LLC requests that the Connecticut Siting Council (“Council”) approve by declaratory ruling BE 2012 W LLC’s location and construction of its customer-side distributed resources project comprised of an approximately 200-kilowatt (“kW”) (net) Bloom Energy Corporation (“Bloom”) solid oxide fuel cell Energy Server described herein, including associated equipment (the “Facility”), located on the site of a Walmart at 3164 Berlin Turnpike, Newington, Connecticut (the “Site”). *See* Exhibit 1.

Conn. Gen. Stat. § 16-50k(a) provides that:

Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any customer-side distributed resources project or facility . . . with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection . . . .

As discussed fully in this Petition, the Facility will be a customer-side distributed resources facility under 65 megawatts (“MW”) that complies with the air and water quality standards of the Connecticut Department of Energy and Environmental Protection (“DEEP”).

Additionally, the Facility will not have a substantial adverse environmental effect in the State of Connecticut.

## **I. COMMUNICATIONS**

Correspondence and other communication regarding this petition should be directed to the following parties:

Michael E. Kozlik  
Philip M. Small  
Brown Rudnick LLP  
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Hartford, CT 06103  
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Charles Fox  
BE 2012 W LLC  
c/o Bloom Energy Corporation  
1299 Orleans Drive  
Sunnyvale, California 94089  
Telephone: (212) 920-7151  
Fax: (408) 543-1501  
Email: [Charles.Fox@bloomenergy.com](mailto:Charles.Fox@bloomenergy.com)

## **II. DISCUSSION**

### **A. Background**

The Facility will be a customer-side distributed resources facility consisting of one approximately 200-kW (net) state-of-the-art Bloom Energy Server and associated equipment interconnected to the main switchboard in the Walmart's electrical room. The electrical room is located at the southeast corner of the Walmart building. *See* Exhibit 2. Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the grid.

The Facility will be a "customer-side distributed resources" project because it will be "a unit with a rating of not more than sixty-five megawatts [and is located] on the premises of a retail end user within the transmission and distribution system including, but not limited to, fuel cells . . . ." Conn. Gen. Stat. § 16-1(a)(40)(A). Further, in its Final Decision in Docket No. 12-

02-09, dated September 12, 2012, the Connecticut Public Utilities Regulatory Authority (“PURA”) determined that Bloom’s Energy Server qualifies as a Class I renewable energy source fuel cell as defined in Conn. Gen. Stat. §16 1(a)(26)(A). *See* Exhibit 3.

BE 2012 W LLC was selected by The Connecticut Light and Power Company (“CL&P”) as a winning bidder in CL&P’s and The United Illuminating Company’s joint request for proposals for their “Low and Zero Emissions Renewable Energy Credit Program” established under Sections 107, 108, and 110 of Public Act No. 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut’s Energy Future* (codified at Conn. Gen. Stat. §§ 16-244r, -244s, and -244t, respectively). As a result of that selection, BE 2012 W LLC has entered into a *Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits* (“Standard Contract”) with CL&P, under which BE 2012 W LLC will sell, and CL&P will purchase, Connecticut Class I Renewable Energy Credits generated by the Facility for a 15-year term. The PURA approved BE 2012 W LLC’s selection by CL&P and its Standard Contract on November 21, 2012 in PURA Docket No. 11-12-06.

## **B. Description of the Site and the Facility**

### **1. The Site**

The Site is zoned as a Planned Development (PD) under the zoning regulations of the Town of Newington (the “Town”). The approximately 18.4-acre property, which is owned by Newington VF, LLC, is currently developed as mixed-commercial use and fronts Berlin Turnpike and Deming Street. Other commercial developments are located along Berlin Turnpike, and garden apartments and single family houses exist on the opposite side of Deming

Street and Culver Street. The nearest off-site structure is over 130 feet from the Facility's proposed location. The Facility will be located within a landscaped island and adjacent to the Walmart's existing loading area near the rear of the store. The portion of the Site that will be used for the Facility is shown on Exhibit 2.

Prior to the filing of this petition, BE 2012 W LLC representatives discussed the proposed Facility with the Town's Zoning Enforcement Officer, Arthur Hanke, in September 2012, and subsequent correspondence was sent to Mr. Hanke on November 5, 2012 (Exhibit 4), discussing the proposed Facility and enclosing the Site Plan (Exhibit 2) for the Town's review. To date, 2012 W LLC has received no comments from the Town regarding the proposed Facility.

## 2. The Facility

The Facility will consist of one Bloom solid oxide fuel cell Energy Server described herein, including associated equipment and its electrical interconnection. The dimensions of the Energy Server are approximately 26'-5" long, 8'-7" wide, and 6'-9" high. The Energy Server module is enclosed and factory-assembled and tested prior to installation on the Site. See Exhibit 5.

The Energy Server will be capable of producing a total of 200 kW of continuous, reliable electric power. The Energy Server will interconnect to the Site's distribution system, will provide a portion of the Site's electrical requirements, and will operate in parallel with the grid. Any electricity generated in excess of the Site's requirement will be exported to the grid. The interconnection to CL&P will be provided from the main switchboard located in Walmart's electrical room. At the time of this report, the CL&P interconnection application is currently being prepared.

The Energy Server will be fueled by natural gas supplied by Connecticut Natural Gas Corporation ("CNG"). A new service line will be brought to the Energy Server from CNG's existing gas main located in Deming Street. The gas will be delivered into a new CNG gas meter set and the Facility's regulator set prior to entering the Energy Server.

The Bloom Energy Server has an extensive hardware, software and operator safety control systems designed into the system in accordance with ANSI/CSA America FC 1-2004, the American National Standards Institute and Canadian Standards Association standard for Stationary Fuel Cell Power Systems. If software or hardware safety circuits detect an unsafe condition, fuel supply is stopped and the system is shut down. Two manual fuel shut-off valves are provided at each installation site, and two normally closed isolation valves that are safety shut-off rated valves are installed within the system. The Facility will be installed in compliance with all applicable building, plumbing, electrical, and other codes.

**C. The Facility Complies with DEEP's Air and Water Quality Standards and Will Not Have a Substantial Adverse Environmental Effect**

The construction and operation of the Facility will comply with DEEP's air and water quality standards and will not have a substantial adverse environmental effect.

Construction-related impacts will be minimal. The Energy Server will be located within a landscaped island and adjacent to Walmart's existing loading area. A concrete pad and 2-foot high block retaining wall will be constructed to support the unit. Utility trenches will be excavated and restored in kind.

Conn. Agencies Regs. § 22a-174-42, which governs air emissions from new distributed generators exempts fuel cells from air permitting requirements. Accordingly, no permits,

registrations, or applications are required based on the actual emissions from the Facility. *See* Conn. Agencies Regs. §§ 22a-174-42(b) and (e). Notwithstanding this exemption, as shown below in Table 1, the Facility meets the Connecticut emissions standards for a new distributed generator. Further, Bloom's Energy Server has passed the stringent California Air Resources Board Distributed Generation Certification Regulation 2007 Fossil Fuel Emission Standards. *See* Exhibit 5.

**Table 1: Connecticut Emissions Standards for a New Distributed Generator**

Compound	Connecticut Emission Standard (lbs/MW-hr) <sup>1</sup>	Bloom Energy Server (lbs/MW-hr)
Oxides of Nitrogen (NO <sub>x</sub> )	0.15	<0.01
Carbon Monoxide (CO)	1	<0.10
Carbon Dioxide (CO <sub>2</sub> )	1,650	773

With respect to water discharges, the Energy Server is designed to operate without water discharge under normal operating conditions. During construction, appropriate soil erosion prevention techniques will be incorporated around the disturbed areas during construction to minimize soil erosion. Due to the limited disturbance required for the Facility's installation, it is not anticipated that any construction-related stormwater permits will be required.

The proposed Facility is located on a lot that was previously developed and disturbed during construction of the shopping center. Therefore, the construction and operation of the Facility will not have any adverse environmental effects on either endangered species or historical resources.

<sup>1</sup> Conn. Agencies Regs. § 22a-174-42, Table 42-2.

The Facility will be placed behind an existing fence and evergreen trees, shielding the Facility from view and reducing noise levels. Sound levels attributable to the Facility will meet all applicable requirements.

### **III. NOTICE**

As set forth in Exhibit 7, BE 2012 W LLC has provided notice of this petition to all persons and appropriate municipal officials and governmental agencies to whom notice is required to be given pursuant to Conn. Agencies Regs. § 16-50j-40(a).

### **IV. BASIS FOR GRANTING OF THE PETITION**

Under Conn. Gen. Stat. § 16-50k(a), the Council is required to approve by declaratory ruling the construction or location of a customer-side distributed resources project or facility with a capacity of not more than 65 MWs, as long as the facility meets DEEP air and water quality standards. The Facility meets each of these criteria. The Facility is a “customer-side distributed resources” project, as defined in Conn. Gen. Stat. § 16-1(a)(40)(A), because the Facility is “a unit with a rating of not more than sixty-five megawatts [and is located] on the premises of a retail end user within the transmission and distribution system including, but not limited to, fuel cells” and, as demonstrated herein, will meet DEEP air and water quality standards. In addition, as demonstrated above, the construction and operation of the Facility will not have a substantial adverse environmental effect in the State of Connecticut.



**V. CONCLUSION**

For the reasons stated above, BE 2012 W LLC respectfully requests that the Council approve the location and construction of the Facility by declaratory ruling.

Respectfully submitted,

BE 2012 W LLC

By: 

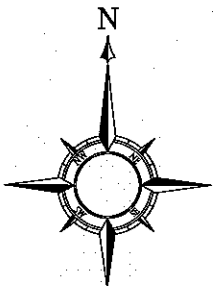
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Its Attorneys

## EXHIBITS

- Exhibit 1: Site Location Map
- Exhibit 2: Site Plan
- Exhibit 3: Final Decision, PURA Docket No. 12-02-09, *Petition of Bloom Energy Corporation for a Declaratory Ruling that Its Solid Oxide Fuel Cell Energy Server Will Qualify as a Class I Renewable Energy Source* (Sept. 12, 2012)
- Exhibit 4: Correspondence with Town
- Exhibit 5: Bloom Energy Server Product Datasheet and General Installation Overview
- Exhibit 6: California Air Resources Board Distributed Generation Certification
- Exhibit 7: Notice Pursuant to Conn. Agencies Regs. § 16-50j-40(a)

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# **EXHIBIT 1**



Job#: BEC-14578

Scale: 1" = 2,000'

Date: 10/23/12

Drawn By: RNP

**CORE STATES**



**GROUP**

379 Campus Drive, Ste 150,  
Somerset, NJ 08873  
tel 732-667-9500 Fax 732-667-9501  
gphillips@core-eng.com

**Bloom**

1252 Orleans Drive, Sunnyvale CA, 94089  
Tel: 408 543 1500 Fax: 408 543 1501

3164 Berlin Turnpike  
Newington, CT 06111

**SITE LOCATION MAP**  
**USGS MAP (HARTFORD SOUTH QUADRANGLE)**

## **EXHIBIT 2**

3

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

## **EXHIBIT 3**



# STATE OF CONNECTICUT

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION  
PUBLIC UTILITIES REGULATORY AUTHORITY  
TEN FRANKLIN SQUARE  
NEW BRITAIN, CT 06051

DOCKET NO. 12-02-09 PETITION OF BLOOM ENERGY CORPORATION FOR A  
DECLARATORY RULING THAT ITS SOLID OXIDE FUEL  
CELL ENERGY SERVER WILL QUALIFY AS A CLASS I  
RENEWABLE ENERGY SOURCE

September 12, 2012

By the following Directors:

Arthur H. House  
John W. Betkoski, III

## DECISION

### I. INTRODUCTION

By Petition dated February 14, 2012, pursuant to Section 4-176 in the General Statutes of Connecticut (Conn. Gen. Stat.) and Section 16-1-113 in the Regulations of Connecticut State Agencies, Bloom Energy Corporation requests that the Public Utilities Regulatory Authority (Authority) issue a declaratory ruling that its solid oxide fuel cell energy server qualifies as a Class I renewable energy source.



## II. PETITIONER'S EVIDENCE

Bloom Energy Corporation (Bloom) has commercialized a scalable, modular fuel cell using Bloom's patented solid oxide fuel cell (SOFC) technology. A fuel cell is a device that uses a fuel and oxygen to create electricity by an electrochemical process. A single fuel cell consists of an electrolyte and two catalyst-coated electrodes (an anode cathode). Fuel cells are generally categorized by the type of electrolyte used. Petition, pp. 2 and 3.

Each Bloom Energy Server consists of thousands of Bloom's patented SOFCs. Each fuel cell is a flat, solid ceramic square capable of producing at least 25 watts. In an energy server, Bloom "sandwiches" the SOFCs between metal interconnect plates into a fuel cell "stack." Bloom aggregates multiple fuel cell stacks together into a "power module," and then multiple power modules, along with a common fuel input and electrical output, are assembled as a complete energy server fuel cell. Id., p. 3.

The Bloom Energy Server converts the chemical energy contained in fuel, such as natural gas, into electricity at an efficiency of approximately 50% - 60% (lower heating value net AC) without any combustion or multi-stage conversion loss. Fuel entering the energy server is processed using a proprietary catalytic method to yield a reformat gas stream, and the gaseous product and preheated air are introduced into the fuel cell stacks. Within the stacks, ambient oxygen reacts with the fuel to produce direct current (DC) electricity. The DC power produced by the energy server system is converted into 480-volt AC power using an inverter, and delivered to the host facility's electrical distribution system. Id.

SOFCs operate at very high temperatures, obviating the need for expensive metal catalysts. With low cost ceramic materials, and extremely high electrical efficiencies, SOFCs can deliver attractive economies without relying on combined heat and power. Id.

Bloom Energy Servers are a fraction of the size of a traditional base load power source, with each server occupying a space similar to that of a parking space. This small, low-impact, modular form of base load power does not pose the environmental challenges associated with a traditional base load power plant, significantly reducing environmental impacts. Moreover, Bloom's innovative design requires only an initial input of 120 gallons of water per 100 kW, after which no additional water is consumed during normal operation. Id., pp. 3 and 4.

Bloom Energy Servers deliver significant environmental benefits over conventional base load technologies. In addition to significant CO<sub>2</sub> reductions due to its high efficiency, the energy server emits virtually no NO<sub>x</sub>, SO<sub>x</sub>, or other smog forming particulates since the conversion of gas to electricity in a Bloom Energy Server is done through an electrochemical reaction rather than combustion. Id., p. 4.

### III. AUTHORITY ANALYSIS

Conn. Gen. Stat. §16-1(a)(26) defines a Class I renewable energy source as:

(A) energy derived from solar power; wind power; a fuel cell; methane gas from landfills; ocean thermal power; wave or tidal power; low emission advanced renewable energy conversion technologies; a run-of-the-river hydropower facility provided such facility has a generating capacity of not more than five megawatts, does not cause an appreciable change in the river flow, and began operation after the effective date of this section; or a biomass facility, including, but not limited to, a biomass gasification plant that utilizes land clearing debris, tree stumps or other biomass that regenerates or the use of which will not result in a depletion of resources, provided such biomass is cultivated and harvested in a sustainable manner and the average emission rate for such facility is equal to or less than .075 pounds of nitrogen oxides per million BTU of heat input for the previous calendar quarter, except that energy derived from a biomass facility with a capacity of less than five hundred kilowatts that began construction before July 1, 2003, may be considered a Class I renewable energy source, provided such biomass is cultivated and harvested in a sustainable manner; or (B) any electrical generation, including distributed generation, generated from a Class I renewable energy source.

Based on Bloom's assertions, the Authority finds that its Bloom Energy Server qualifies as a Class I renewable energy source "fuel cell" as defined in Conn. Gen. Stat. §16-1(a)(26)(A).

The Authority has created an electronic application process for generation owners to apply for a Connecticut Renewable Portfolio Standards registration. The application is available on the Authority's website at the web address <http://www.ct.gov/pura>. The application should be submitted electronically along with a single hard-copy filing. While the Authority concludes in this Decision that the Bloom Energy Server would qualify as a Class I renewable energy source pursuant to Conn. Gen. Stat. §16-1(a)(26), Bloom must still apply for registration of the aforementioned system once the facility becomes operational and is registered in the New England Generation Information System.

#### **IV. CONCLUSION**

Based upon the project as described herein, the Authority finds that, as proposed, the Bloom Energy Server would qualify as a Class I renewable energy source. However, since the energy server is not yet operational, it should apply for Class I registration once it begins operations.

**The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to requirements of the Americans with Disabilities Act. Any person with a disability who may need information in an alternative format may contact the agency's ADA Coordinator at 860-424-3194, or at [deep.hrmed@ct.gov](mailto:deep.hrmed@ct.gov). Any person with limited proficiency in English, who may need information in another language, may contact the agency's Title VI Coordinator at 860-424-3035, or at [deep.aao@ct.gov](mailto:deep.aao@ct.gov). Any person with a hearing impairment may call the State of Connecticut relay number – 711. Discrimination complaints may be filed with DEEP's Title VI Coordinator. Requests for accommodations must be made at least two weeks prior to any agency hearing, program or event.**

**DOCKET NO. 12-02-09    PETITION OF BLOOM ENERGY CORPORATION FOR A  
DECLARATORY RULING THAT ITS SOLID OXIDE FUEL  
CELL ENERGY SERVER WILL QUALIFY AS A CLASS I  
RENEWABLE ENERGY SOURCE**

This Decision is adopted by the following Directors:

Arthur H. House

John W. Betkoski, III

**CERTIFICATE OF SERVICE**

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



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Kimberley J. Santopietro  
Executive Secretary  
Department of Energy and Environmental Protection  
Public Utilities Regulatory Authority

September 12, 2012

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Date

## **EXHIBIT 4**

November 2, 2012

Arthur Hanke  
Town of Newington  
131 Cedar Street  
Newington, CT 06111

RE: Bloom Energy Fuel Server Projects (Two Locations)  
3164 Berlin Turnpike Walmart  
3465 Berlin Turnpike Sam's Club

Dear Mr. Hanke,

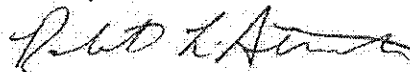
We spoke a few weeks ago regarding Bloom Energy. If you recall, Bloom Energy Servers are fuel cells that utilize natural gas and water to generate electricity. The electricity will serve some of the demands of large facilities such as the Walmart and Sam's Club buildings referenced above. Since our initial conversation we have further refined our plans and coordinated with the gas company. I've attached a copy of Bloom Energy's product sheet which is also available on their web site: <http://www.bloomenergy.com> and the current preliminary plan. These are pad mounted devices, similar to a transformer. As you can see from the material and web site, the equipment is self-enclosed and modern looking. We ask that you respect the confidentiality of these documents.

At the #3164 location, Bloom is proposing to install one energy server. It will be similar to the attached and located within a grass area at the rear of the building. This area is adjacent to the loading docks and truck circulation aisle. The location does not obstruct operations of the store and only increases impervious coverage by approximately 715sf.

The #3465 site proposes to place the unit within the existing impervious footprint, adjacent to the loading dock. The proposed location is currently used to temporarily store baled cardboard. These items will either be stored inside the building or in the unutilized parking stalls immediately to the west of the fuel cell.

We are submitting to the Connecticut Siting Council within the next two weeks and wanted to give you an opportunity to see the plans in advance. We would be happy to discuss any comments you may have either by phone or in person. If you have any questions or need further information, please feel free to call.

Thank you,



Robert L. Streker, PE  
CC: G.Benson, Bloom Energy

## **EXHIBIT 5**

### ***Clean Base Load Power***

Bloom Energy Corporation is a provider of breakthrough solid oxide fuel cell (SOFC) technology that delivers clean power to meet base load electricity needs. Bloom Energy Servers™ are among the most efficient energy generators available, providing for significantly reduced electricity costs and dramatically lower greenhouse gas emissions. Bloom Energy Servers™ produce reliable and clean electricity using an environmentally superior non-combustion process. The result is a new option for energy infrastructure that combines increased electrical reliability and improved energy security with significantly lower environmental impact.

### ***All-Electric Solution***

The Bloom Energy Server™ is an "all-electric" solution that utilizes waste heat internally to increase the efficiency of electrical power production. This characteristic allows Bloom systems to be deployed at sites where it is not necessary to match on-site thermal loads or develop complicated infrastructure to handle thermal energy outputs. The Energy Server's superior electrical efficiency obviates the need for complicated CHP systems and expands the opportunity to deploy clean on-site power generation.

<b>Technical Highlights</b>	
<b>Inputs</b>	
<b>Fuel</b>	Natural Gas
<b>Fuel pressure</b>	15 psig
<b>Fuel required per 100 kW generated</b>	0.661 MMBtu/hr of natural gas
<b>Outputs</b>	
<b>Nominal power output (net AC)</b>	Per 100 kW generated
<b>Electrical efficiency (LHV net AC)</b>	50 - 60%
<b>Electrical connection</b>	480V @ 60 Hz
<b>Emissions</b>	
<b>NOx</b>	< 0.01 lbs/MW-hr
<b>SOx</b>	negligible
<b>CO</b>	< 0.10 lbs/MW-hr
<b>VOCs</b>	< 0.02 lbs/MW-hr
<b>CO2 @ specified efficiency</b>	773 lbs/MW-hr of natural gas
<b>Codes &amp; Standards</b>	
<b>Designed to comply with NEC, NFPA, ANSI, CT DPUC and CT SIR utility interconnection standards.</b>	
<b>Exempt from Air District Permitting; meets stringent CARB 2007 emissions standards.</b>	

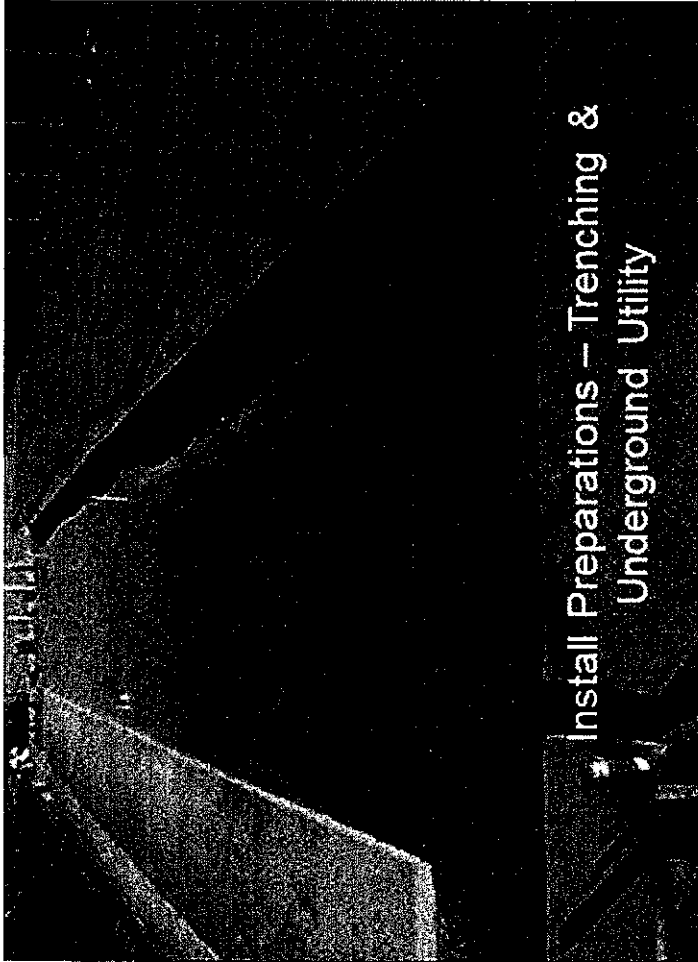


# Bloom Energy Server





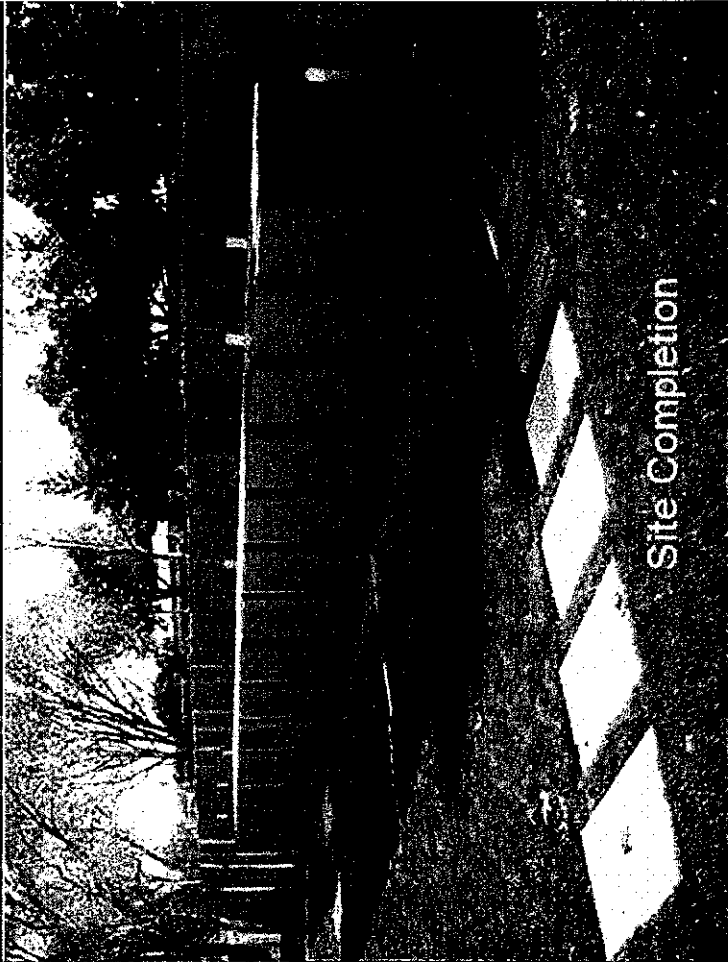
Pre-Construction



Install Preparations – Trenching &  
Underground Utility



Set Pads



Site Completion

# Bloom Energy Server Installation



# Representative Installations



## **EXHIBIT 6**

State of California  
AIR RESOURCES BOARD  
Executive Order DG-036  
Distributed Generation Certification of  
Bloom Energy Corporation  
ES-5700

WHEREAS, the Air Resources Board (ARB) was given the authority under California Health and Safety Code section 41514.9 to establish a statewide Distributed Generation (DG) Certification Program to certify electrical generation technologies that are exempt from the permit requirements of air pollution control or air quality management districts;

WHEREAS, this DG Certification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules and regulations;

WHEREAS, on July 11, 2011, Bloom Energy Corporation applied for a DG Certification of its 200 kW ES-5700 fuel cell and whose application was deemed complete on August 30, 2011;

WHEREAS, Bloom Energy Corporation has demonstrated, according to test methods specified in title 17, California Code of Regulations (CCR), section 94207, that its natural-gas-fueled ES-5700 fuel cell has complied with the following emission standards:

1. Emissions of oxides of nitrogen no greater than 0.07 pounds per megawatt-hour;
2. Emissions of carbon monoxide no greater than 0.10 pounds per megawatt-hour; and
3. Emissions of volatile organic compounds no greater than 0.02 pounds per megawatt-hour.

WHEREAS, Bloom Energy Corporation has demonstrated that its ES-5700 fuel cell complies with the emission durability requirements in title 17, CCR, section 94203(d);

WHEREAS, I find that the Applicant, Bloom Energy Corporation, has met the requirements specified in article 3, title 17, CCR, and has satisfactorily demonstrated that the ES-5700 fuel cell meets the DG Certification Regulation 2007 Fossil Fuel Emission Standards;

NOW THEREFORE, IT IS HEREBY ORDERED, that a DG Certification, Executive Order DG-036 is granted.

This DG Certification:

- 1) is subject to all conditions and requirements of the ARB's DG Certification Program, article 3, title 17, CCR, including the provisions relating to inspection, denial, suspension, and revocation;
- 2) shall be void if any manufacturer's modification results in an increase in emissions or changes the efficiency or operating conditions of a model, such that the model no longer meets the DG Certification Regulation 2007 Fossil Fuel Emission Standards; and
- 3) shall expire on the 21<sup>st</sup> day of September, 2016.

Executed at Sacramento, California, this 21<sup>st</sup> day of September 2011.

James Goldstene  
Executive Officer  
by

/S/

Richard Corey, Chief  
Stationary Source Division

## **EXHIBIT 7**





MICHAEL E. KOZLIK  
Counselor at Law  
direct dial: 860-509-6570  
mkozlik@brownrudnick.com

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Hartford  
Connecticut  
06103  
tel 860.509.6500  
fax 860.509.6501

November 29, 2012

**VIA FIRST CLASS MAIL**

To the Persons on the Attached List

**RE: Petition of BE 2012 W LLC to the Connecticut Siting Council for a Declaratory Ruling for the Location and Construction of a 200-Kilowatt Fuel Cell Customer-Side Distributed Resource at 3164 Berlin Turnpike, Newington, Connecticut**

Dear Ladies and Gentlemen:

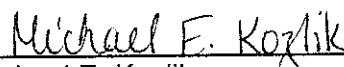
Pursuant to Section 16-50j-40 of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that BE 2012 W LLC intends to file on or shortly after November 30, 2012, a petition for declaratory ruling with the Council. The petition will request the Council's approval of the location and construction of an approximately 200-kilowatt (net) Bloom Energy Corporation fuel cell, including associated equipment (the "Facility"). The Facility will be located on a Walmart site at 3164 Berlin Turnpike, Newington, Connecticut (the "Site") within a landscaped island and adjacent to the loading area near the rear of the store. The Facility will be approximately 26'-5" long, 8'-7" wide, and 6'-9" high. Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the electric grid. The Facility will be fueled by natural gas.

BE 2012 W LLC was selected by The Connecticut Light and Power Company ("CL&P") as a winning bidder in the "Low and Zero Emissions Renewable Energy Credit Program" established under Sections 107, 108, and 110 of Public Act No. 11-80. As a result of that selection, BE 2012 W LLC has entered into a Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits with CL&P, which was approved by the Connecticut Public Utilities Regulatory Authority on November 21, 2012.

If you have any questions regarding the proposed Facility, please contact the undersigned or the Council.

Very truly yours,

**BROWN RUDNICK LLP**

  
Michael E. Kozlik  
Attorney for BE 2012 W LLC

## PROOF OF NOTICE

This is to certify that on the 29th day of November, 2012, the foregoing notice was sent via first class mail to the following:

<i>AGENCY</i>	<i>NAME/ADDRESS</i>
Chief Executive Officer	Stephen Woods, Mayor Newington Town Hall 131 Cedar Street Newington, CT 06111
Planning and Zoning Commission	David Pruett, Chairman Planning and Zoning Commission Newington Town Hall 131 Cedar Street Newington, CT 06111
Zoning Enforcement Officer	Arthur Hanke, ZEO Planning and Zoning Department Newington Town Hall 131 Cedar Street Newington, CT 06111
Town Planner	Craig Minor, Town Planner Planning and Zoning Department Newington Town Hall 131 Cedar Street Newington, CT 06111
Conservation Commission	Philip Block, Chairman Conservation Commission Newington Town Hall 131 Cedar Street Newington, CT 06111
Regional Planning Agency	Lyle Wray, Executive Director Capitol Region Council of Governments 241 Main Street, 4th Floor Hartford, Connecticut 06106-5310

<i>AGENCY</i>	<i>NAME/ADDRESS</i>
CT Attorney General	The Honorable George Jepsen Attorney General 55 Elm Street Hartford, CT 06106
State Senator	The Honorable Paul Doyle State Senate – 9th District Legislative Office Building, Room 3500 Hartford, CT 06106-1591
State Representative	The Honorable Rick Lopes State Representative – 24th District Legislative Office Building, Room 4014 Hartford, CT 06106-1591
State Representative	The Honorable Sandy Nafis State Representative – 27th District Legislative Office Building, Room 4047 Hartford, CT 06106-1591
State Representative	The Honorable Antonio Guerrero State Representative – 29th District Legislative Office Building, Room 2301 Hartford, CT 06106-1591
State Department of Energy and Environmental Protection	Daniel C. Esty, Commissioner Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127
State Department of Public Health	Dr. Jewel Mullen, Commissioner Department of Public Health 410 Capitol Avenue Hartford, CT 06134
State Council on Environmental Quality	Barbara C. Wagner, Chair Council on Environmental Quality 79 Elm Street Hartford, CT 06106

<i>AGENCY</i>	<i>NAME/ADDRESS</i>
State Department of Agriculture	Steven K. Reviczky, Commissioner Department of Agriculture 165 Capitol Avenue Hartford, CT 06106
Office of Policy & Management	Benjamin Barnes, Secretary Office of Policy and Management 450 Capitol Avenue Hartford, CT 06106
State Department of Economic & Community Development	Catherine Smith, Commissioner Department of Economic and Community Development 505 Hudson Street Hartford, CT 06106
State Department of Transportation	James P. Redecker, Commissioner Department of Transportation 2800 Berlin Turnpike Newington, CT 06111
Any Federal Agencies with Jurisdiction Over the Site	None
<i>ABUTTER PROPERTY</i>	<i>ABUTTER NAME/MAILING ADDRESS</i>
3120-3180 Berlin Turnpike	Newington VF LLC c/o Vornado Realty Trust 210 Route 4 East Paramus, NJ 07652
3127-3137 Berlin Turnpike	BTA Newington LLC 955 Washington Street Middletown, CT 06457
3153 Berlin Turnpike	McBride Properties Inc. 3153 Berlin Turnpike Newington, CT 06111
3203 Berlin Turnpike	Harriet Cohen and Anja Rosenberg Rev. Trust 4 Sisters Newington LLC 77 Tennyson Drive Long Meadow, MA 01106

<i>ABUTTER PROPERTY</i>	<i>ABUTTER NAME/MAILING ADDRESS</i>
3103-3123 Berlin Turnpike	Ceres Newington Associates LLC 55 Watermill Lane Great Neck, NY 11021
3145 Berlin Turnpike	Jade Newington, LLC 3145 Berlin Turnpike Newington, CT 06111
3191 Berlin Turnpike	Richard J. Bonelli c/o Alliance Energy LLC 404 Wyman Street, Suite 425 Waltham, MA 02451
3206 Berlin Turnpike	Cruise Nights of Newington LLC c/o US Foods Co & Round Robin LLC 330 Roberts Street, Suite 100 East Hartford, CT 06108
3270 Berlin Turnpike	Lowes Home Centers Inc. #623 Att Tax Department 1ETA P.O. Box 1000 Mooresville, NC 28115
35 Culver Street 258 Deming Street	Estate of Oscar W. Haltner Ronald F. Drachenberg, Administrator 45 Freedom Drive Collinsville, CT 06019-0341
20 Cambridge Drive #B	Cambridge Arms LLC P.O. Box 310277 Newington, CT 06131-0277
202 Deming Street	Salvatore J. Jr. and Paula J. Visconti 202 Deming Street Newington, CT 06111
207 Deming Street	Scottish Rite Foundation of Hartford Inc. P.O. Box 11198 Newington, CT 06131
3066 Berlin Turnpike	Sphinx Shriners A A O N M S P.O. Box 310157 Newington, CT 06131-0157

<i>ABUTTER PROPERTY</i>	<i>ABUTTER NAME/MAILING ADDRESS</i>
3050 Berlin Turnpike	Cole LZ Newington CT LLC c/o La-Z-Boy 1284 North Telegraph Road Monroe, MI 48162
3465 Berlin Turnpike 0 Pane Road	Newington Berlin Retail LLC 900 Town & Country Lane, Suite 210 Houston, TX 77024
3475-3491 Berlin Turnpike	Newington Gross LLC 2086 West 5th Street (Street #1) Brooklyn, NY 11223
3563 Berlin Turnpike	Newington Berlin Retail LLC 3161 Michelson Drive, Suite 600 Tax Irvine, CA 92612
42 Willow Lane	Willows Homeowners Association Inc. c/o White 27 Willow Lane Newington, CT 06111
660 Church Street	Richard J. and Katherine Merlino 660 Church Street Newington, CT 06111
674 Church Street	Maria M. Garrido Cauley 674 Church Street Newington, CT 06111
39-67 Maselli Road	39/67 Maselli Road Complex LLC 638 Church Street Newington, CT 06111
58 Maselli Road	105/113 Pane Road Complex LLC c/o Pane Enterprises, Inc. 638 Church Street Newington, CT 06111

By: Michael E. Kozlik  
Michael E. Kozlik



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

December 10, 2012

The Honorable Stephen Woods  
Mayor  
Town of Newington  
131 Cedar Street  
Newington, CT 06111

RE: **PETITION NO. 1052** – BE 2012 W LLC petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a 200 kW Fuel Cell to be located at Walmart, 3164 Berlin Turnpike, Newington, Connecticut.

Dear Mayor Woods:

The Connecticut Siting Council (Council) received a petition for a declaratory ruling, pursuant to General Statutes § 16-50k. A copy of which has already been provided to you. The request will be placed on a future meeting agenda, a copy of which will be sent to you.

Please call me or inform the Council if you have any questions or comments regarding the proposal. Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts  
Executive Director

LR/jbw

c: Mr. John L. Salomone, Town Manager, Town of Newington  
Craig Minor, Town Planner, Town of Newington